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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

24

Application Number

09/580,515; Patent Number: 6,720,014

Filing Date

May 25, 2000; Issue Date: Apr. 13, 2004

First Named Inventor

Short

Art Unit

1652

Examiner Name

D. Ramirez

Attorney Docket Number

564462001821/D1370-4US

**ENCLOSURES (Check all that apply)**

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	37 CFR §1.322 Request for Certificate of Correction -Office Mistake (2 pages)
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	See Remarks for other enclosures
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Reply to Missing Parts/Incomplete Application	<input type="checkbox"/> Landscape Table on CD	
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Remarks	

Exhibit A (18 pages); Completed Form SB/44 Form Certificate of Correction (3 pages);  
Statement Under 37 CFR 3.73(b) (1 page)

Customer No. 29062

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name	Verenum Corporation		
Signature	/lynnmlinkowski/		
Printed name	Lynn M. Linkowski		
Date	November 17, 2008	Reg. No.	47,320

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature			
Typed or printed name		Date	

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Jay M. SHORT

Patent No.: 6,720,014

Issued: April 13, 2004

For: PHYTASE-CONTAINING FOODSTUFFS  
AND METHODS OF MAKING AND USING  
THEM

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**REQUEST FOR CERTIFICATE OF CORRECTION PURSUANT TO 37 C.F.R. § 1.322,**  
**OFFICE MISTAKE**

Attention: Certificate of Corrections Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is a request for a Certificate of Correction pursuant to 37 CFR §1.322 (a)(1)(i) to correct a mistake in the claims printed in above-identified patent. The claims printed in issued patent US 6,720,014 are not the claims that were allowed. The mistake was made through the fault of the Office and is clearly disclosed in the records of the Office.

Attached is Exhibit A which consists of downloaded files from PAIR. Exhibit A includes the Notice of Allowance, Reasons for Allowance, Examiner's handwritten direction not to enter the claims submitted on 9/2/2003, and the Claim Listing of the allowed claims (claims 18, 41-79 as of 3/25/2003). The files and documents all have an Office Mail Room Date of 10-22-2003. For your convenience, the pages in Exhibit A have been numbered to better locate supporting evidence of the mistake made.

At page 7 of Exhibit A, "Reasons for Allowance", the Examiner explains why the claims submitted on 9/2/2003 have *not* been entered but the terminal disclaimer is sufficient to overcome the double patenting objections applied to claims 18, 41-79 as of 3/25/2003. Again on page 8 of Exhibit A at number 4., the Examiner clearly states, "**Claims 18, 41-79 as of 3/25/2003, which is the mailing date of the Final Action, are allowed.**"

The assertion is further supported by the following documentation. On page 13 of Exhibit A, the Examiner has hand written "***Do not enter DR 10/14/03***" on the first page of the claims submitted on 9/2/2003. On page 14-18 of Exhibit A, "Claim Listing" is the allowed claims 18, 41-79, as of 3/25/2003.

For convenience and to expedite this request for correction, Form SB44 is submitted with the allowed claims. Patentee requests the issued patent be corrected to show the claims that were allowed, which are **Claims 18, 41-79 as of 3/25/2003**. Note that the claims shown in Form SB44 are numbered as they appeared in prosecution and as allowed. Patentee requests the Patent Office to renumber the claims as appropriate for listing in the granted patent.

Patentee believes there are no fees associated with this request; however the Commissioner is hereby authorized to charge any other fees that may be associated with this communication, or credit any overpayment to Deposit Account No. 500661.

Respectfully submitted,

Date: November 17, 2008

/lynnmlinkowski/  
Lynn Linkowski  
Reg. No. 47,320  
Telephone: 858-526-5450  
Fax: 858-526-5796

Verenium Corporation  
Intellectual Property Department  
4955 Directors Place  
San Diego, CA 92121

Exhibit A



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

20985 7590 10/22/2003  
FISH & RICHARDSON, PC  
12390 EL CAMINO REAL  
SAN DIEGO, CA 92130-2081

EXAMINER

RAMIREZ, DELIA M

ART UNIT PAPER NUMBER

1652

DATE MAILED: 10/22/2003

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/580,515	05/25/2000	Jay M. Short	DIVER1370-4	9360

TITLE OF INVENTION: RECOMBINANT BACTERIAL PHYTASES AND USES THEREOF

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$665	\$0	\$665	01/22/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status.  
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**  
**Commissioner for Patents**  
**P.O. Box 1450**  
**Alexandria, Virginia 22313-1450**  
**or Fax (703) 746-4000**

**INSTRUCTIONS:** This form should be used for transmitting the **ISSUE FEE** and **PUBLICATION FEE** (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

**CURRENT CORRESPONDENCE ADDRESS** (Note: Legibly mark-up with any corrections or use Block 1)

20985 7590 10/22/2003  
**FISH & RICHARDSON, PC**  
**12390 EL CAMINO REAL**  
**SAN DIEGO, CA 92130-2081**

**Note:** A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**  
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/580,515	05/25/2000	Jay M. Short	DIVER1370-4	9360

**TITLE OF INVENTION:** RECOMBINANT BACTERIAL PHYTASES AND USES THEREOF

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$665	\$0	\$665	01/22/2004

EXAMINER	ART UNIT	CLASS-SUBCLASS
RAMIREZ, DELIA M	1652	424-094600

**1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).**

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

**2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.**

1	_____
2	_____
3	_____

**3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)**

**PLEASE NOTE:** Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent); ☐ individual ☐ corporation or other private group entity ☐ government

**4a. The following fee(s) are enclosed:**

- ☐ Issue Fee  
☐ Publication Fee  
☐ Advance Order - # of Copies \_\_\_\_\_

**4b. Payment of Fee(s):**

- ☐ A check in the amount of the fee(s) is enclosed.  
☐ Payment by credit card. Form PTO-2038 is attached.  
☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature) (Date)

**NOTE:** The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.** SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**TRANSMIT THIS FORM WITH FEE(S)**

PTOL-85 (Rev. 10/03) Approved for use through 04/30/2004.

OMH 0651-0033 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

2



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/580,515	05/25/2000	Jay M. Short	DIVER1370-4	9360
20985	7590	10/22/2003	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			RAMIREZ, DELIA M	
			ART UNIT	PAPER NUMBER
			1652	

DATE MAILED: 10/22/2003

## Determination of Patent Term Extension under 35 U.S.C. 154 (b) (application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/580,515	05/25/2000	Jay M. Short	DIVER1370-4	9360
20985	7590	10/22/2003	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			RAMIREZ, DELIA M	
			ART UNIT	PAPER NUMBER
			1652	

DATE MAILED: 10/22/2003

## Notice of Fee Increase on October 1, 2003

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2003, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on October 1, 2003. See Revision of Patent Fees for Fiscal Year 2004; Final Rule, 68 Fed. Reg. 41532, 41533, 41534 (July 14, 2003).

The current fee schedule is accessible from (<http://www.uspto.gov/main/howtofees.htm>).

If the fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due" but not the correct amount in view of the fee increase, a "Notice of Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice of Pay Balance of Issue Fee," if the response to the Notice of Allowance is to be filed on or after October 1, 2003 (or mailed with a certificate of mailing on or after October 1, 2003), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously-paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Effective October 1, 2003, 37 CFR 1.18 is amended by revising paragraphs (a) through (c) to read as set forth below.

### Section 1.18 Patent post allowance (including issue) fees.

- (a) Issue fee for issuing each original or reissue patent, except a design or plant patent:
- By a small entity (Sec. 1.27(a))..... \$665.00
  - By other than a small entity..... \$1,330.00
- (b) Issue fee for issuing a design patent:
- By a small entity (Sec. 1.27(a))..... \$240.00
  - By other than a small entity..... \$480.00
- (c) Issue fee for issuing a plant patent:
- By a small entity (Sec. 1.27(a))..... \$320.00
  - By other than a small entity..... \$640.00

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	09/580,515	SHORT ET AL.	
	Examiner	Art Unit	
	Delia M. Ramirez	1652	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/2/2003.
2. ☒ The allowed claim(s) is/are see attached.
3. ☒ The drawings filed on 25 May 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1 <input type="checkbox"/> Notice of References Cited (PTO-892) 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 5 <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. <u>3/4/2003</u> 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material	2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____ 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9 <input type="checkbox"/> Other
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## DETAILED ACTION

### *Status of the Application*

Claims 18, 41-79 are pending.

The request for entering amendments to claims 18, 41-44, 46-57, 59-60, 62-65, 67, 70-79, addition of new claims 80-101, and arguments filed on 9/2/2003 under 37 CFR 1.116 in reply to the Final Action Paper No. 17 mailed on 3/25/2003 are acknowledged. The proposed amendments will not be entered since they raise new issues and would require additional search. At a minimum, the new claims would be rejected under 35 USC 112, first and second paragraph. It is noted that the claims 18, 41-79, as amended in response to the Final Action, and newly added claims 80-87 are directed to a method which encompasses different phytases from those encompassed by the method of previously presented in claims 18, 41-79. In addition, newly added claims 88-101 are not directed to the elected invention, i.e. a method to produce a foodstuff comprising the polypeptide of SEQ ID NO:2, but rather to a foodstuff comprising a phytase.

The terminal disclaimer filed on 9/2/2003 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent No. 6,183,740 and any patent granted on Application Number 09/777,566 and 09/866,379 has been reviewed and is accepted. The terminal disclaimer has been recorded.

The information disclosure statement (IDS) submitted on 3/4/2003 is acknowledged. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Examiner's Amendment***

1. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Please replace the paragraph beginning at page 1, line 4 with the following rewritten paragraph.

This application is a continuation-in-part of U.S. Patent Application Serial No. 09/318,528, filed May 25, 1999, now U.S. Patent No. 6,183,740, which is a continuation-in-part of U.S. Patent Application Serial No. 09/291,931, now U.S. Patent No. 6,190,897, filed April 13, 1999, which is a continuation of U.S. Patent Application Serial No. 09/259,214, now U.S. Patent No. 6,110,719, filed March 1, 1999, which is a divisional of U.S. Patent Application Serial No. 08/910,798, now U.S. Patent No. 5,876,997, filed August 13, 1997, all of which are hereby incorporated by reference in their entirety.

***Reasons for Allowance***

3. The following is an Examiner's statement of reasons for allowance. While the claims submitted on 9/2/2003 have not been entered for the reasons set forth above, submission of the terminal disclaimer is deemed sufficient to overcome the double patenting rejections previously applied to claims 18, 41-79 as of 3/25/2003, which is the mailing date of the Final Action. The Examiner has found no teaching or suggestion in the prior art directed to a method of producing

Art Unit: 1652

a foodstuff containing the phytase of SEQ ID NO: 2. Therefore, claims 18, 41-79, as of 3/25/2003, directed to a method to produce a foodstuff containing the phytase of SEQ ID NO: 2, are allowable over the prior art of record.

4. Claims 18, 41-79 as of 3/25/2003, which is the mailing date of the Final Action, are allowed.

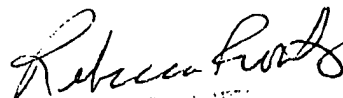
5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delia M. Ramirez whose telephone number is (703) 306-0288. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Ponnathapura Achutamurthy can be reached on (703) 308-3804. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Delia M. Ramirez, Ph.D.  
Patent Examiner  
Art Unit 1652

DR  
October 14, 2003

  
RECEIVED  
JANUARY 14, 2004  
1652

Substitute Form PTO-1449 (Modified) <b>MAR 04 2003</b> <b>Information Disclosure Statement</b> <b>by Applicant</b> (See general instructions if necessary) (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 09010-029005	Application No. 09/580,515
	Applicant Jay M. Short et al.		
	Filing Date May 25, 2000	Group Art Unit 1652	

## U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
DR	AA	5,284,933	Feb 8, 1994	Döbeli et al.			
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

RECEIVED  
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TECH CENTER 1600/2900


## Foreign Patent Documents or Published Foreign Patent Applications

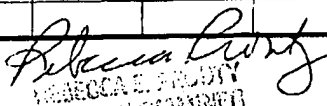
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							

## Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	AQ	
	AR	
	AS	
	AT	

Examiner Signature <i>Delia Ramirez</i>	Date Considered 10/14/03
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

<b>Issue Classification</b> 	Application No.	Applicant(s)	
	09/580,515	SHORT ET AL.	
	Examiner	Art Unit	
	Delia M. Ramirez	1652	

ISSUE CLASSIFICATION											
ORIGINAL				CROSS REFERENCE(S)							
CLASS	SUBCLASS			CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)						
426	52			435	196	320.1	69.1	468	410	18	
INTERNATIONAL CLASSIFICATION				536	23.2						
C	1	2	N	9/16	800	278	295				
C	1	2	Q	1/34	426	53	61	615	635		
C	1	2	P	21/06							
C	1	2	N	15/79							
C	1	2	N	5/02							
Delia Ramirez 10/10/2003 (Assistant Examiner) (Date)					 REBECCA E. SMITH PRIMARY EXAMINER 1600 (Primary Examiner) (Date)					Total Claims Allowed: 40	
(Legal Instruments Examiner) (Date)										O.G. Print Claim(s) 1	

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant				<input type="checkbox"/> CPA				<input checked="" type="checkbox"/> T.D.				<input type="checkbox"/> R.1.47			
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original		
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# Search Notes



Application No.

09/580,515

Examiner

Delia M. Ramirez

Applicant(s)

SHORT ET AL.

Art Unit

1652

## SEARCHED

Class	Subclass	Date	Examiner
435	18	10/10/2003	DR
435	69.1		
435	468		
435	320.1		
435	410		
435	196		
536	23.2		
800	278		
800	295		
426	52		
426	53		
426	61		
426	615		
426	635		


## INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner
426	52	10/10/2003	DR
435	196		
435	69.1		
426/53,61,615,635 435/18,468,320.1,410 536/23.2 800/278,295			

## SEARCH NOTES (INCLUDING SEARCH STRATEGY)

	DATE	EXMR
STN search of 3/18/02 updated-see documentation in the case	10/10/2003	DR
WEST search of 3/18/02 updated-see documentation in the case	10/10/2003	DR
PALM-Inventor search	10/10/2003	DR
Sequence search-interference-pending files kept by the EXMR	10/10/2003	DR

11

<b>Index of Claims</b> 	Application No.	Applicant(s)
	09/580,515	SHORT ET AL.
	Examiner	Art Unit
	Delia M. Ramirez	1652

✓	Rejected
=	Allowed

—	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date									
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Applicant Jay M. Short et al.  
Serial No. 09/580,515  
Filed May 25, 2000  
Page 3 of 16

Attorney's Docket No.: 09010-029005 / DIVER1370-4

DO NOT  
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DR  
10/14/03

Amendment to the Claims:

Please amend the claims as follows:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

Claim 18 (currently amended): A method to produce a foodstuff [[containing]] comprising a [[microbial]] a polypeptide having a phytase activity comprising:

(a) providing a [[plant]] cell [[, plant part or plant that contains]] comprising an isolated or a recombinant [[expression vector comprising a]] phytase-encoding nucleic acid having a nucleotide sequence selected from the group consisting of

(i) a sequence as set forth in SEQ ID NO: 1, [[and]]

(ii) a sequence as set forth in SEQ ID NO: 1, wherein T can also be U; and

(iii) a nucleic acid encoding a polypeptide as set forth in SEQ ID NO:2 or a phytase having a sequence as set forth in SEQ ID NO:2 with conservative amino acid substitutions, wherein conservative amino acid substitutions comprise replacements, one for another, among the aliphatic amino acids Ala, Val, Leu and Ile, or, interchange of the hydroxyl residues Ser and Thr, or, exchange of the acidic residues Asp and Glu, or, substitution between the amide residues Asn and Gln, or, exchange of the basic residues Lys and Arg, or, replacements among the aromatic residues Phe, Tyr, or any combination thereof, or active fragments thereof;

(b) culturing the [[plant]] cell [[, plant part or plant]] under conditions wherein said nucleic acid is expressed as a polypeptide having a phytase activity; and

(c) converting said cell plant cells, plant parts or plants into a composition suitable for a foodstuff, ~~wherein the foodstuff contains phytate and the phytase.~~

Claim 41 (currently amended): The method of claim [[18]] 85, wherein the ~~recombinant expression vector comprising the~~ nucleic acid encoding said phytase is within a host cell.



## Claim Listing

Claims 1-17 [cancelled]

- 18. (Four times amended) A method to produce a foodstuff containing a microbial phytase comprising:
- a) providing a plant cell, plant part or plant that contains a recombinant expression vector comprising a phytase-encoding nucleic acid having a nucleotide sequence selected from
    - i) SEQ ID NO: 1, and
    - ii) SEQ ID NO: 1, wherein T can also be U;
  - b) culturing the plant cell, plant part or plant under conditions wherein said nucleic acid is expressed as a polypeptide; and
  - c) converting said plant cells, plant parts or plants into a composition suitable for foodstuff, wherein the foodstuff contains phytate and the phytase.

Claims 19-40 [cancelled]

41. (Amended) The method of claim 18, wherein the recombinant expression vector comprising the nucleic acid encoding said phytase is within a host cell.
42. (Amended) The method of claim 18, wherein said phytase-encoding nucleic acid is operably linked to a polynucleotide encoding a signal peptide.
- 43 (Amended) The method of claim 41, wherein the nucleic acid is operably linked to a transcription control sequence operable in said plant cells, plant parts or plants.
44. The method of claim 43, wherein the control sequence comprises a tissue-specific promoter that is specific for the plant cells, plant parts or plants.
45. The method of claim 43, wherein the control sequence comprises a constitutive promoter.

46. (Amended) The method of claim 18, wherein the phytase catalyzes liberation of inorganic phosphate from the phytate in the foodstuff.

47. The method of claim 46, wherein the liberation occurs after the ingestion of said foodstuff by a recipient organism.

48. The method of claim 46, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs in part prior to and in part after the ingestion of said foodstuff by a recipient organism.

49. (New) The method of claim 46, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs prior to the ingestion of said foodstuff by a recipient organism.

50. (New) The method of claim 18, further comprising purifying the expressed polypeptide.

51. (Amended) The method of claim 18, wherein the plant comprises seeds containing the phytase encoded by a nucleic acid having the nucleotide sequence as set forth in SEQ ID NO:1 to be used to catalyze phytate-hydrolyzing reactions.

52. (Amended) The method of claim 18, wherein the foodstuff is for a non-ruminant animal.

53. (Amended) The method of claim 18, wherein the foodstuff is for a monogastric animal.

54. (New) The method of claim 18, wherein the plant cells, plant part, or plant is of a dicotyledonous species.

55. (Amended) The method of claim 18, wherein the plant cells, plant part, or plant is of a monocotyledonous species.

56. (Amended) A method to produce a foodstuff containing a microbial phytase comprising:

- a) providing a plant cell, plant part or plant that contains a recombinant expression vector comprising a phytase-encoding nucleic acid having a nucleotide sequence selected from
  - i) a sequence encoding a polypeptide sequence as set forth in SEQ ID NO:2and
  - ii) a sequence encoding the polypeptide sequence as set forth in SEQ ID NO:2, wherein T can also be U;
- b) culturing the plant cell, plant part or plant under conditions wherein said nucleic acid is expressed; and
- c) converting said plant cells, plant parts or plants into a composition suitable for foodstuff, wherein the foodstuff contains phytate and the phytase.

57. (Amended) The method of claim 56, wherein the recombinant expression vector comprising the nucleic acid encoding said phytase is within a host cell.

58. (Amended) The method of claim 56, wherein said phytase-encoding nucleic acid is operably linked to a polynucleotide encoding a signal peptide.

59. (Amended) The method of claim 57, wherein the nucleic acid is operably linked to a transcription control sequence operable in said plant cells, plant parts or plants.

60. (New) The method of claim 59, wherein the control sequence comprises a tissue-specific promoter that is specific for the plant cells, plant parts or plants.

61. (New) The method of claim 59, wherein the control sequence comprises a constitutive promoter.

62. (Amended) The method of claim 56, wherein the phytase catalyzes liberation of inorganic phosphate from the phytate in the foodstuff.

63. (New) The method of claim 62, wherein the liberation occurs after the ingestion of said foodstuff by a recipient organism.

64. (New) The method of claim 62, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs in part prior to and in part after the ingestion of said foodstuff by a recipient organism.

65. (New) The method of claim 62, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs prior to the ingestion of said foodstuff by a recipient organism.

66. (New) The method of claim 56, further comprising purifying the expressed polypeptide.

67. (Amended) The method of claim 56, wherein the plant comprises seeds containing the phytase encoded by a nucleic acid having a sequence as set forth in SEQ ID NO:1 to be used to catalyze phytate-hydrolyzing reactions. --

68. (Amended) The method of claim 56, wherein the foodstuff is for a non-ruminant animal.

69. (Amended) The method of claim 56, wherein the foodstuff is for a monogastric animal.

70. (New) The method of claim 56, wherein the plant cell, plant part, or plant is of a dicotyledonous species.

71. (New) The method of claim 56, wherein the plant cell, plant part, or plant is of a monocotyledonous species. --

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-- 72. (New) The method of claim 18, wherein the foodstuff is an animal feed.

73. (Amended) The method of claim 46, wherein the foodstuff is an animal feed.

74. (Amended) The method of claim 52, wherein the foodstuff is an animal feed.

75. (Amended) The method of claim 53, wherein the foodstuff is an animal feed.

76. (New) The method of claim 56, wherein the foodstuff is an animal feed.

77. (Amended) The method of claim 62, wherein the foodstuff is an animal feed.

78. (Amended) The method of claim 68, wherein the foodstuff is an animal feed.

79. (Amended) The method of claim 69, wherein the foodstuff is an animal feed.

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 3

PATENT NO. : 6,720,014  
APPLICATION NO.: 09/580,515  
ISSUE DATE : Apr. 13, 2004  
INVENTOR(S) : Jay M. Short

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Page 47, beginning at column 83 through column 86, after What is claimed is:, all claims should be replaced with the following:

18. A method to produce a foodstuff containing a microbial phytase comprising:
- a) providing a plant cell, plant part or plant that contains a recombinant expression vector comprising a phytase-encoding nucleic acid having a nucleotide sequence selected from
    - i) SEQ ID NO:1, and
    - ii) SEQ ID NO:1, wherein T can also be U;
  - b) culturing the plant cell, plant part or plant under conditions wherein said nucleic acid is expressed as a polypeptide; and
  - c) converting said plant cells, plant parts or plants into a composition suitable for foodstuff, wherein the foodstuff contains phytate and the phytase.
41. The method of claim 18, wherein the recombinant expression vector comprising the nucleic acid encoding said phytase is within a host cell.
42. The method of claim 18, wherein said phytase-encoding nucleic acid is operably linked to a polynucleotide encoding a signal peptide.
43. The method of claim 41, wherein the nucleic acid is operably linked to a transcription control sequence operable in said plant cells, plant parts or plants.
44. The method of claim 43, wherein the control sequence comprises a tissue-specific promoter that is specific for the plant cells, plant parts or plants.
45. The method of claim 43, wherein the control sequence comprises a constitutive promoter.
46. The method of claim 18, wherein the phytase catalyzes liberation of inorganic phosphate from the phytate in the foodstuff.
47. The method of claim 46, wherein the liberation occurs after the ingestion of said foodstuff by a recipient organism.
48. The method of claim 46, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs in part prior to and in part after the ingestion of said foodstuff by a recipient organism.

**MAILING ADDRESS OF SENDER (Please do not use customer number below):**

Verenium Corporation (formerly Diversa Corporation)  
P.O. Box 910550  
San Diego, California 92191-0550

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 2 of 3

PATENT NO. : 6,720,014  
APPLICATION NO.: 09/580,515  
ISSUE DATE : Apr. 13, 2004  
INVENTOR(S) : Jay M. Short

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

49. The method of claim 46, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs prior to the ingestion of said foodstuff by a recipient organism.
50. The method of claim 18, further comprising purifying the expressed polypeptide.
51. The method of claim 18, wherein the plant comprises seeds containing the phytase encoded by a nucleic acid having the nucleotide sequence as set forth in SEQ ID NO:1 to be used to catalyze phytate-hydrolyzing reactions.
52. The method of claim 18, wherein the foodstuff is for a non-ruminant animal.
53. The method of claim 18, wherein the foodstuff is for a monogastric animal.
54. The method of claim 18, wherein the plant cells, plant part, or plant is of a dicotyledonous species.
55. The method of claim 18, wherein the plant cells, plant part, or plant is of a monocotyledonous species.
56. A method to produce a foodstuff containing a microbial phytase comprising:
  - a. providing a plant cell, plant part or plant that contains a recombinant expression vector comprising a phytase-encoding nucleic acid having a nucleotide sequence selected from
    - i. a sequence encoding a polypeptide sequence as set forth in SEQ ID NO:2 and
    - ii. a sequence encoding the polypeptide sequence as set forth in SEQ ID NO:2, wherein T can also be U;
  - b. culturing the plant cell, plant part or plant under conditions wherein said nucleic acid is expressed; and
  - c. converting said plant cells, plant parts or plants into a composition suitable for foodstuff, wherein the foodstuff contains phytate and the phytase.
57. The method of claim 56, wherein the recombinant expression vector comprising the nucleic acid encoding said phytase is within a host cell.
58. The method of claim 56, wherein said phytase-encoding nucleic acid is operably linked to a polynucleotide encoding a signal peptide.
59. The method of claim 57, wherein the nucleic acid is operably linked to a transcription control sequence operable in said plant cells, plant parts or plants.
60. The method of claim 59, wherein the control sequence comprises a tissue-specific promoter that is specific for the plant cells, plant parts or plants.
61. The method of claim 59, wherein the control sequence comprises a constitutive promoter.

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San Diego, California 92191-0550

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## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 3 of 3

PATENT NO. : 6,720,014  
APPLICATION NO.: 09/580,515  
ISSUE DATE : Apr. 13, 2004  
INVENTOR(S) : Jay M. Short

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- 62. The method of claim 56, wherein the phytase catalyzes liberation of inorganic phosphate from the phytate in the foodstuff.
- 63. The method of claim 62, wherein the liberation occurs after the ingestion of said foodstuff by a recipient organism.
- 64. The method of claim 62, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs in part prior to and in part after the ingestion of said foodstuff by a recipient organism.
- 65. The method of claim 62, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs prior to the ingestion of said foodstuff by a recipient organism.
- 66. The method of claim 56, further comprising purifying the expressed polypeptide.
- 67. The method of claim 56, wherein the plant comprises seeds containing the phytase encoded by a nucleic acid having a sequence as set forth in SEQ ID NO:1 to be used to catalyze phytate-hydrolyzing reactions.
- 68. The method of claim 56, wherein the foodstuff is for a non-ruminant animal.
- 69. The method of claim 56, wherein the foodstuff is for a monogastric animal.
- 70. The method of claim 56, wherein the plant cell, plant part, or plant is of a dicotyledonous species.
- 71. The method of claim 56, wherein the plant cell, plant part, or plant is of a monocotyledonous species.
- 72. The method of claim 18, wherein the foodstuff is an animal feed.
- 73. The method of claim 46, wherein the foodstuff is an animal feed.
- 74. The method of claim 52, wherein the foodstuff is an animal feed.
- 75. The method of claim 53, wherein the foodstuff is an animal feed.
- 76. The method of claim 56, wherein the foodstuff is an animal feed.
- 77. The method of claim 62, wherein the foodstuff is an animal feed.
- 78. The method of claim 68, wherein the foodstuff is an animal feed.
- 79. The method of claim 69, wherein the foodstuff is an animal feed.

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P.O. Box 910550  
San Diego, California 92191-0550

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*



01370-405

### STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: Jay M. Short

Application No./Patent No.: US6720014 Filed/Issue Date: Apr. 13, 2004

Entitled: PHYTASE-CONTAINING FOODSTUFFS AND METHODS OF MAKING AND USING THEM

VERENIUM, a CORPORATION  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest  
(The extent (by percentage) of its ownership interest is \_\_\_\_\_ %)

In the patent application/patent identified above by virtue of either:

A ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

B ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: Jay Short, Keith Kretz To: Diversa Corporation  
The document was recorded in the United States Patent and Trademark Office at Reel 011169, Frame 0566, or for which a copy thereof is attached.

2. From: Diversa Corporation To: Verenium Corporation  
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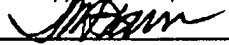
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☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

 _____ Signature William H. Baum _____ Printed or Typed Name _____ Executive Vice President, Business Development _____ Title	May 06, 2008 _____ Date 858-526-5110 _____ Telephone Number
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This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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